



Form PTO-1449 (modified)

LIST OF PRIOR ART CITED BY APPLICANT

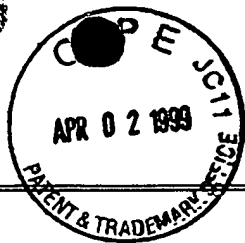
Sheet 1 of 5

Application No.: 09/237,605
Filing Date: January 25, 1999
First Named Inventor: Richard J. Lazzara
Group Art Unit: 3738
Examiner: Not Assigned
Attorney Docket No.: IMPI:035--1

U.S. PATENT DOCUMENTS

Examiner Initial	Ref.	Document Number	Date	Name	Class	Sub-Class	Filing Date (if Application)
PBP	A1	3,855,638	12/24/74	Pilliar	3	1	
	A2	4,145,764	03/27/79	Suzuki et al.	3	1.9	
	A3	4,195,409	04/01/80	Child	433	175	
	A4	4,547,157	10/15/85	Driskell	433	173	
	A5	4,722,688	02/02/88	Lonca	433	173	
PBP	A6	4,818,559	04/04/89	Hama et al.	427	2	
	A7	4,826,434	05/02/89	Krueger	433	174	
PBP	A8	4,874,434	10/17/89	Riggs Jr.	134	3	
	A9	4,908,030	03/13/90	Linkow et al.	623	16	
	A10	4,911,953	03/27/90	Hosonuma et al.	427	224	
	A11	4,944,754	07/31/90	Linkow et al.	623	16	
	A12	5,000,685	03/19/91	Brainovic	433	173	
	A13	5,030,096	07/09/91	Hurson et al.	433	173	
	A14	5,071,351	12/10/91	Green et al.	422	23	
	A15	5,188,800	02/23/93	Green et al.	433	173	
	A16	5,190,795	03/02/93	Culler	427	226	
	A17	5,205,745	04/27/93	Kamiya			
	A18	5,297,963	03/29/94	Dafatry	433	172	
	A19	5,316,476	05/31/94	Krauser	433	173	
	A20	5,316,477	05/31/94	Calderon	433	173	
PBP	A21	5,344,425	09/06/94	Sawyer	606	198	
	A22	5,344,457	09/06/94	Pilliar et al.	623	16	
	A23	5,360,448	11/19/94	Thramann	623	18	
PBP	A24	5,362,237	11/08/94	Chalifoux	433	220	
PBP	A25	5,368,480	11/29/94	Balfour et al.	433	141	
PBP	A26	5,368,483	11/29/94	Sutter et al.	433	173	
PBP	A27	5,399,090	03/31/95	Padros-Fradera	433	173	

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U.S. PATENT DOCUMENTS (continued)

Examiner Initial	Ref.	Document Number	Date	Name	Class	Sub-Class	Filing Date (if Application)
PPR	A28	5,433,606	07/18/95	Niznick et al.	433	173	
	A29	5,456,723	10/10/95	Steinemann et al.	623	16	
	A30	5,478,237	12/26/95	Ishizasawa	433	201.1	
	A31	5,489,210	02/06/96	Hanosh	433	173	
	A32	5,503,558	04/02/96	Clokic	433	173	
	A33	5,564,923	10/15/96	Grassi et al.	433	173	
	A34	5,571,017	11/05/96	Niznick	433	174	
PPR	A35	5,573,401	11/12/96	Davidson et al.	433	201.1	
	A36	5,588,838	12/31/96	Hansson et al.	433	173	
	A37	5,603,338	02/18/97	Beaty	623	16	
	A38	5,863,201	01/26/99	Lazzara et al.	433	201.1	
	A39	5,876,453	03/02/99	Beaty	623	16	

FOREIGN PATENT DOCUMENTS

Examiner Initial	Ref.	Document Number	Date	Country	Class	Sub-Class	Translation Yes/No
PPR	B1	EP 606 566 A1	07/20/94	EPO			
	B2	CH 679117 A5	12/31/91	Switzerland			No
PPR	B3	GB 2,252,501 A	08/12/92	U.K.			
	B4						
	B5						

OTHER DOCUMENTS (including author, title, date, pertinent pages, etc.)

Examiner Initial	Ref.	Document Information
PPR	C1	Albrektsson, T., et al., "Osseointegrated Titanium Implants" (1991)
PPR	C2	Baier, R. E., et al., "Implant Surface Preparation," <i>International Journal of Oral & Maxillofacial Implants</i> , Volume 3, pp. 9-20 (1988)

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Examiner Initial	Ref.	Document Number	Date	Name	Class	Sub-Class	Filing Date (if Application)
DBP	C3	Baier, R. E., et al., "Surface Energetics And Biological Adhesion," <i>International Symposium on Physicochemical Aspects of Polymer Surfaces</i> , Volume 2, pp. 895-909 (no date)					
ABP	C4	Binon, P., "Evaluation Of Machining Accuracy And Consistency Of Selected Implants, Standard Abutments, And Laboratory Analogs," <i>International Journal of Prosthodontics</i> , Volume 8, pp. 162-178 (1995)					
PPB	C5	Bowers, K., et al., "Optimization Of Surface Micromorphology For Enhanced Osteoblast Responses In Vitro," <i>International Journal of Oral & Maxillofacial Implants</i> , Volume 7, No. 3, pp. 302-310 (1992)					
	C6	Branemark, P.I., et al., "Osseointegrated Implants In The Treatment Of The Edentulous Jaw Experience From A 10 Year Period," <i>Stockholm, Almqvist & Wiksell International</i> (1977)					
PPB	C7	Buser, D., et al., "Influence Of Surface Characteristics On Bone Integration Of Titanium Implants, A Histomorphometric Study In Miniature Pigs," <i>Journal of Biomedical Materials Research</i> , Volume 25, pp. 889-902 (1991)					
DBP	C8	Carlsson L., et al., "Removal Torques For Polished And Rough Titanium Implants," <i>International Journal of Oral & Maxillofacial Implants</i> , Volume 3, pp. 21-24 (1988)					
PPB	C9	Cook, S., et al., "Fatigue Properties Of Carbon- And Porous-Coated Ti-6Al-4V Alloy," <i>Journal of Biomedical Materials Research</i> , Volume 18, pp. 497-512 (1984)					
	C10	Curtis, A. S. G., et al., "The Effects Of Topographic And Mechanical Properties Of Materials On Cell Behavior," <i>Critical Reviews in Biocompatibility</i>, Volume 5, Issue 4, pp. 343-362 (1990)					
	C11	de Groot, K., et al., "Plasma Sprayed Coatings Of Hydroxylapatite," <i>Journal of Biomedical Materials Research</i>, Volume 21, pp. 1375-1381 (1987)					
PPB	C12	Eberhardt, A., et al., "Effects Of Precoating Surface Treatments On Fatigue Of Ti-6Al-4V," <i>Journal of Applied Biomaterials</i> , Volume 6, pp. 171-174 (1995)					
PPB	C13	Ingemar, Olefjord, et al., "Surface Analysis Of Four Dental Implant Systems," <i>International Journal of Oral & Maxillofacial Implants</i> , Volume 8, No. 1, pp. 32-40 (1993)					
	C14	Kasemo, B., et al., "Metal Selection And Surface Characteristics," <i>Tissue Integrated Prostheses Osseointegration In Clinical Dentistry</i> (Quintessence Books), pp. 99-116 (1985)					
	C15	Kjoldkveid, P., et al., "Evaluation Of A New Chemically Enhanced Implant Surface By Torque Removal Tests In The Rabbit Femur," <i>Clinical Oral Implants Research</i> (1997)					
	C16	Lazzara, R., et al., "Retrospective Multicenter Analysis Of 31 Endosseous Dental Implants Placed Over A Five Year Period," <i>Clinical Oral Implants Research</i>, Volume 7, pp. 73-83 (1996)					
PPB	C17	Ledermann et al., "The Ha-Ti Implant," <i>Schweiz Monatsschr Zahnmed</i> , Volume 101, No. 5, 7 pages (May 1991)					
	C18	Messersmith, P., et al., "Stress Enhancement And Fatigue Susceptibility Of Porous Coated Ti-6Al-4V Implants: An Elastic Analysis," <i>Journal of Biomedical Materials Research</i>, Volume 24, pp. 591-604 (1990)					

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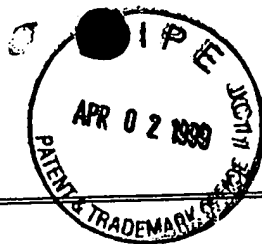
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U.S. PATENT DOCUMENTS (continued)

Examiner Initial	Ref.	Document Number	Date	Name	Class	Sub-Class	Filing Date (if Application)
	C19	Reedeck, Paul, et al., "Attachment Of Bone To Threaded Implants By Ingrowth And Mechanical Interlocking," Journal of Biomedical Materials Research, Volume 6, pp. 401-412 (1972)					
	C20	Schulte, J., "External Hex Manufacturing Tolerances Of Six Implant Systems: A Pilot Study," Implant Dentistry, pp. 51-53 (Spring 1994)					
PPD	C21	Shultz, R. R., et al., "A Study Of Fatigue Properties Of Hydroxylapatite Coated Titanium Alloy Implant Materials," Department of Biomedical Engineering, Memphis State University (no date)					
	C22	Sorenson, J., et al., "Comparison Of Interface Fidelity Of Implant Systems," Journal of Dental Research, Volume 70, No. 540, Abstract No. 2191 (1991)					
	C23	Sullivan, Daniel, et al., "Preliminary Results Of A Multicenter Study Evaluating Chemically Enhanced Pure Titanium Implants," Journal of Prosthetic Dentistry (1997)					
PPD	C24	Sutter et al., "The New Restorative Concept Of The ITI Dental Implant System: Design And Engineering," Volume 13, No. 5, pp. 408-413 (1993)					
PPD	C25	Tarnow, Dennis P., DDS, "Dental Implants In Periodontal Care," <i>Current Science</i> , pp. 157-162 (1993)					
	C26	Thomas, K. A., et al., "The Effect Of Surface Macrotexture And Hydroxylapatite Coating On The Mechanical Strengths And Histologic Profiles Of Titanium Implant Materials," Journal of Biomedical Materials Research, Volume 21, pp. 1395-1414 (1987)					
	C27	Weinlaender, M., et al., "Histomorphometry Of Bone Apposition Around Three Types Of Endosseous Dental Implants," International Journal of Oral & Maxillofacial Implants, Volume 7, No. 4, pp. 491-496 (1992)					
PPD	C28	Wennerberg, A., et al., "Design And Surface Characteristics Of 13 Commercially Available Oral Implant Systems," <i>International Journal of Oral & Maxillofacial Implants</i> , Volume 8, No. 6, pp. 622-633 (1993)					
	C29	Wheeler, Stephen L., "Eight Year Clinical Retrospective Study Of Titanium Plasma-Sprayed And Hydroxyapatite-Coated Cylinder Implants," International Journal of Oral & Maxillofacial Implants, Volume 11, No. 3, pp. 340-350 (1996)					
PPD	C30	Wilke, H. J., et al., "The Influence Of Various Titanium Surfaces On The Interface Shear Strength Between Implants And Bone," <i>Advances in Biomaterials</i> , Elsevier Science Publishers B.V., Amsterdam, Volume 9, pp. 309-314 (1990)					
	C31	Wong, M., et al., "Effect Of Surface Topology On The Osseointegration Of Implant Materials In Trabecular Bone," Journal of Biomedical Materials Research, Volume 29, pp. 1567-1575 (1995)					
	C32	Yue, S., et al., "The Fatigue Strength Of Porous-Coated Ti-6%Al-4%V Implant Alloy," Journal of Biomedical Materials Research, Volume 18, pp. 1043-1058 (1984)					
PPD	C33	"Ion-Beam-Sputter Modification Of The Surface Morphology Of Biological Implants," <i>J. Vac. Soc. Technol.</i> , Volume 14, No. 1, pp. 326-331 (January/February 1977)					
PPD	C34	"Short-Term Plasma-Cleaning Treatments Enhance In Vitro Osteoblast Attachment To Titanium," <i>Journal of Oral Implantology</i> , Volume XVIII, No. 2, pp. 130-137 (1992)					

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U.S. PATENT DOCUMENTS (continued)

Examiner Initial	Ref.	Document Number	Date	Name	Class	Sub-Class	Filing Date (if Application)
<i>RP</i>	C35	"Step-Screw Implant," <i>Dental Products Report</i> (March 1993)					
EXAMINER <i>Paul Prebilic</i>				DATE CONSIDERED <i>6-29-00</i>			

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